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How Many Species of Birds Can Be Seen in Iowa in One Year?

3

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In the past decade there has been an increasing interest in annual state bird lists. The number of birders reporting annual state lists to *Birding* has risen from 35 for 1970 to 139 for 1977. Reports for 1977 included new records for twenty-one states, including Iowa. The sport of annual state lists has been particularly active in California where the largest state totals have been attained. In 1974 Rich Stallcup saw 450 species (later reduced to 434 by species changes and not counting introduced species) in California (Ref. 1). This record was surpassed by Guy McCaskie (446) and several others in 1977 (Ref. 2). Roberson's book gives an excellent account of the challenge of big year including birding localities (Ref. 2). From a state close to Iowa, Kim Eckert gives an account of his seeing 300 species in Minnesota in 1977 (Ref. 3).

Annual lists reported to *Birding* from Iowa are limited to the following: Ruth Zollars with 171 species in 1971 (Ref. 4), and Nick Halmi with 184 species in 1972, 183 in 1973, 210 in 1974, 229 (erroneously printed as 360) in 1976, and 230 in 1977 (Ref. 5). Records of previous yearly lists for Iowa are sparse and without documentation of methods used. A review of all past issues of *Iowa Bird Life* revealed few references to yearly bird lists.

The highest yearly count among several early Scott County birders (1900 to 1925) was 166 species by Burtis H. Wilson in 1906 (Ref. 6). Mary Price Roberts reported yearly lists of 178 for 1933 and 180 for 1934 in the Iowa City area (Ref. 7 & 8). For 1936 C. Esther Copp reported a composit list for the Cedar Rapids Bird Club of 183 species (Ref. 9), and Bruce F. Stiles described a yearly list of 136 species for the Sioux City area (Ref. 10). For the years 1949 through 1973, Fred and Tom Kent reported yearly totals from the Iowa City area ranging from 165 to 221 species (Ref. 11). The high count of 221 species for 1961 included species which were all seen by F. W. Kent.

In 1978 the authors of this articles, at first independently and then collectively, attempted to see as many species in Iowa as possible given the time available. Kent, who had been encouraged by a list of 223 species in 1977 with only five birding trips in the first four months of the year, started 1978 with intensive early birding, attaining 227 species by May 18. Shires, on the other hand, missed many species in the first four months of the year but was able to find most of the missed species by intensive fall birding. Halmi continued his persistent birding of the previous two years and added some additional species with group effort.

For the most part the authors birded independently in the Iowa City area, including Hickory Hill Park in Iowa City, the Coralville Reservoir - Lake Macbride area to the north and west of Iowa City and Cone Marsh to the south of Iowa City. Occasional trips to the Amanas and Muskrat Slough were included. More extensive and distant trips were frequently made together. For example, of 98 trips made by Kent for the year, 12 were with Shires, 7 with Halmi and 7 with both Shires and Halmi.

Collectively 251 species were seen in Iowa in 1978 by the authors, with 225 species seen by all, 5 by Halmi and Kent, 5 by Kent and Shires, 6 by Halmi alone, 6 by Shires alone and 4 by Kent alone. This produced yearly individual totals of 239 (Kent), 236 (Halmi) and 236 (Shires).

For the purposes of discussion we have broken the 251 species seen into four groups: (a) 201 species which should be found each year in eastern Iowa, (b) 8 species that were reported by birders at specific locations, (c) 13 species that would not be expected every year but were found by specifically looking for them in an appropriate locality at the right time, and (d) 29 species not encountered each year which were found by chance.

Of the 201 species which we have judged to be findable in eastern Iowa each year, all were seen by Halmi, Kent missed the Black-bellied Plover and Short-eared Owl, and Shires the Black-bellied Plover and C. Screech, Long-eared and Short-eared Owls. Some of the more borderline birds in this category which we all saw include Least Bittern, which has been increasingly difficult to find in recent years; Cooper's Hawk, which is now uncommon; Short-billed Dowitcher, which is easy to miss and hard to identify; Acadian Flycatcher, which is uncommon and limited to a few areas; Golden-crowned Kinglet, whose population has been affected by the last two severe winters; and Mourning Warbler, which is easy to miss.

The eight species which we found because they were reported by birders at specific locations included Swainson's Hawk at its nest near Randalia, Fayette County, shown to us by Joe Schaufenbuel, Say's Phoebe located by Fred Thompson near Central City and seen by each of us on three different days in June, Carolina Wren resident in the Kent neighborhood (missed by Shires), Townsend's Solitaire in Des Moines shown to us by Woody Brown and Dick Mooney, Evening Grosbeak seen only by Halmi at Helen Osmundson's feeder next door to his house, Pine Grosbeaks in Cedar Rapids and Iowa City reported by several birders and seen by each of us independently, Gray-crowned Rosy Finch at the feeder of Mrs. Sharon Ladeburg in Oelwein and reported by Gladys Black, and the first state record of Hoary Redpoll shown to us by Fred Thompson at his home in Marion. Another Hoary Redpoll was seen later by Kent near the Dupont Bridge on the Coralville Reservoir. The Carolina Wren would have been considered a regular bird in previous years, but their population has been greatly reduced by the severity of the last two winters.

Finding birds in the next category - uncommon birds seen because they were specifically looked for - was perhaps the most gratifying. Trips to the Mississippi River in March and carefully scoping of all Scaup yielded Greater Scaup, a bird that should, perhaps, be seen every year but usually is not. Baird's and Western Sandpipers pass through Iowa every year, but shortage of appropriate habitat in 1978 owing to high water levels made finding them unpredictable. We found these birds by making many trips to excellent mud flats available at Cone Marsh and the Coralville Reservoir in August and September. Franklin's Gull was found twice by Kent because of extensive coverage of open farmland and the Coralville Reservoir in early April. Bonaparte's Gull was found by all by continued coverage of the Coralville Reservoir in spring and fall. Kent found a Little Tern at Cone Marsh on August 24 because he made several trips to this area in anticipation of possible post-breeding northern migration of this species. Water Pipit is another migrant that is easy to miss. Kent and Shires anticipated seeing it on the grassy open habitat at Sugar Bottom on the Coralville Reservoir in mid-October, although Halmi and Shires had encountered it fortuitously at Amana Lake in the spring. We sought and found four uncommon warblers in the deep woods habitat of Wildcat Den State Park, Muscatine County: Louisiana Waterthrush, Kentucky Warbler, Yellow-breasted Chat and Hooded Warbler. The Connecticut Warbler was the most exciting year's find for Kent. It had been seen in Hickory Hill Park the previous year toward the end of spring migration, so he made seven early morning trips to

the park between May 9 and 18 specifically in hopes of seeing this bird. On May 18, the day he was to leave for Alaska at 11 a.m., he went to the park at 6 a.m. At 7 a.m. a bird was heard in a dense thicket that he was sure must be a Connecticut Warbler, but 45 minutes and four chases into the thicket were required to see it. A second lifer for the day - a Barrow's Goldeneye in Anchorage - was anticlimatic. Shires found the Connecticut Warbler in the fall at Hickory Hill Park by waiting in one spot for an hour until the bird appeared. LeConte's Sparrow was seen by Kent at Cone Marsh with the help of Mike Newlon, Rich DeCoster and Tom Staudt by combing appropriate grassy fields in late April.

Uncommon or rare birds which were encountered more or less by chance include two rarities not on the Iowa Ornithologists' Union Field Check List (Yellow Rail and Prairie Warbler) and three species not expected in the Iowa City area (Eared Grebe, Gray Partridge and Western Kingbird). Yellow Rails were flushed at Cone Marsh on April 30 during a search for LeConte's Sparrows and remained for a week (Ref. 12). The Eared Grebe was found by Shires at Cone Marsh on November 5; Halmi and Kent were unable find it later in the day. Gray Partridge were a complete surprise when encountered west of North Liberty by Kent Shires, Carl Bendorf and Rick Hollis on the Christmas bird count, December 16. The Western Kingbird was seen by Kent near Cone Marsh on September 3, a day on which twenty migrating Eastern Kingbirds were seen. Other species marked as rare on the Field Check List that were found included a Mute Swan seen on the Mississippi River by Kent and Shires on March 11, a Red-shouldered Hawk on the same day near Muscatine, a Merlin seen by Shires at Kent Park in September, Marbled Godwits seen in both spring and fall, a Bohemian Waxwing seen by Halmi in his yard five minutes before Kent and Shires arrived for a winter trip to Duluth, White-eyed Vireos resident at Hickory Hill Park, a Black-throated Blue Warbler in the river bottom near Cone Marsh, and a Pine Warbler seen and heard by Halmi at Hickory Hill Park.

Other birds seen which may easily be missed in any given year include Am. White Pelican (seen only by Shires), Cattle Egret (seen in two locations), Gr. White-fronted Goose (seen only by Shires), Common Gallinule (seen only by Shires), Ruddy Turnstone (seen by Kent and Halmi), Hudsonian Godwit, Common Tern, Alder Flycatcher (seen only by Shires), Northern Mockingbird (seen by Kent and Shires), Philadelphia Vireo, Worm-eating Warbler (seen by Halmi and Kent), Cape May Warbler, Orchard Oriole, Common Redpoll (abundant in the winter of 1977-1978 but can be missed in other years), Lark Sparrow (which is becoming difficult to find), and Clay-colored Sparrow.

Of the species on the Field Check List not seen, the largest group fell into the category of infrequently seen water birds, including Western Grebe, Little Blue Heron (seen in the area by Mike Newlon), Snowy Egret, Yellow-crowned Night Heron, Whistling Swan, Oldsquaw, American Avocet, Piping Plover, Whimbrel, Northern Phalarope, Sanderling, and Buff-breasted Sandpiper. Winter species missed included Golden Eagle, N. Goshawk, Snowy Owl, Saw-whet Owl (seen by others on the Christmas bird count), Red Crossbill and White-winged Crossbill. Birds which presumably could have been found in specific areas of the state include Ruffed Grouse, Summer Tanager, Blue Grosbeak and Henslow's Sparrow. The only significant migrant songbirds missed were Yellow-bellied Flycatcher, Brewer's Blackbird, and Sharp-tailed Sparrow. Other species missed include Cinnamon Teal, Peregrine Falcon, King Rail, Chuck-will's-widow and Bewick's Wren. We also missed a Varied Thrush in Cedar Falls on March 18 which was seen five minutes after we left the area.

Our experience suggests important ingredients for maximizing the number of

species found in Iowa in one year. These include: (a) general strategies and abilities needed, (b) yearly migration patterns and weather conditions and, (c) distribution of time in various localities.

The most important strategy is to spend as much time as possible in the field throughout the year. Early morning hours are the most productive, especially during the first three weeks in May when the best birds are often found before 9 a.m. Some time before or after sunset is needed to find species such as Black-crowned Night Heron, American Woodcock, C. Screech Owl, Short-eared Owl and Whip-poor-will. Walking is important to flush marsh birds such as Least and American Bitterns, rails, Long-eared and Saw-whet Owls, March Wren and LeConte's Sparrow and to hear rare song birds such as Pileated Woodpecker, Acadian, Willow and Alder Flycatchers, White-eyed Vireo, Prothonotary Warbler, Worm-eating Warbler, Pine Warbler, Louisiana Water-thrush, Kentucky Warbler, Connecticut Warbler, Yellow-breasted Chat, Hooded Warbler, and Henslow's and Caly-colored Sparrows. It is important to be able to recognize the songs of these species, or, at least, recognize them as unusual.

We have found that two to four people represent an ideal sized birding group - enough eyes and ears to pick up all birds in the area but not too many people to require group organization or to slow progress. Excessive time should not be spent in any one habitat. It is better to cover more areas on a trip than to cover an area completely or take long hikes where walking is difficult or unproductive. Marsh and water areas have a higher yield than wooded areas. When birding together, the authors frequently complement each other in ability to recognize songs or spot unusual species. Additionally, it is more helpful to have good communications with other birders. Tips on locations of unusual species will add many species to a year's list. It is important to write down specific directions to the location of these birds.

The most important variations in yearly conditions involve cyclical southern winter migration of northern species, the amount of shorebird habitat, and the weather conditions during warbler migration. During 1978 there was an unusually good northern and western bird migration bringing down unusual species such as Bohemian Waxwing, Evening Grosbeak, Common and Hoary Redpolls, Pine Grosbeak and Gray-crowned Rosy Finch. Shorebird habitat was moderately good in the spring and fall; only a few unusual shorebirds were seen. May of 1978 brought one of the most unusual warbler migrations we have seen. Cold weather held back the migration - catbirds did not arrive until May 10. Then three days of warm south winds suddenly brought in massive numbers of thrushes, warblers and other song birds. On the first of these days Kent and Shires, starting at 4 a.m. amassed 100 species by 9 a.m. and 135 by 10 p.m. May 13, was to be our big day count, but a cold front with heavy wind and rain prevented us from seeing a single bird at Cone Marsh at daybreak. So we changed our plan and went to Wildcat Den State Park and then on up the Mississippi to Credit Island. In spite of the weather we encountered a massive warbler fallout - 27 warbler species on this miserable, windy, rainy day. The year's warbler list included all 34 species on the Field Check List plus a Prairie Warbler heard by Halmi at Wildcat Den.

The distribution of time spent in various localities should be planned carefully in order to maximize the number of species seen. Winter bird coverage should include a search of evergreen groves for Long-eared and Saw-whet Owls and birding at dusk for Short-eared Owls. Failure to spend enough effort at this activity resulted in missing the Saw-whet Owl. Kent and Shires could not find a Short-eared Owl in December, probably because the heavy snow and ice drove them further

south. Birding at dusk in January and February probably would have produced this species. All tips on unusual species should be followed up. Winter is also a good time to make trips to appropriate areas for Ruffed Grouse, Gray Partridge and Wild Turkey. Winter or early spring trips to the Mississippi River may yield unusual gulls or ducks such as Glaucous Gull or Greater Scaup. Systematic checking of cemeteries and feeders may produce unusual winter songbirds. Unusual hawks are most like encountered during migration days in March - April and September - October. It is important to recognize weather conditions most appropriate for hawk migration so as to spend time at appropriate location to see them. Probably the most important specific strategy is to cover waterbird areas on a regular basis. This should include marshes, reservoirs and the Mississippi River if possible. Spring and fall trips to Missouri River areas at the peak of waterfowl flights would be desirable. August and September may be very productive for shorebirds if mudflats are available.

The most productive time of the year is the first three weeks in May, especially the second week. As much time as possible should be spent in the field during this time, with coverage of all habitat areas. Several trips need to be made for certain species. These include Western Kingbird, Summer Tanager and Blue Grosbeak, which may be found in southwest Iowa in breeding season, Henslow's Sparrow, which may be found at Hayden Prairie in northeast Iowa in breeding season, Ruffed Grouse in northeast Iowa, best heard drumming in early spring, Gray Partridge in north central Iowa, best found in winter and early spring, and Wild Turkey best found in winter and spring in Shimek Forest or the Amana Colonies.

Birds not on the Field Check List are found by chance or through tips from other birders. Tips should be followed up as soon as possible as unusual birds may stay in an area for only a few days. Birds on the Field Check List for which tips would be most helpful include Eared and Western Grebes, Am. White Pelican, Little Blue Heron, Cattle Egret, Snowy Egret, Yellow-crowned Night Heron, Cinnamon Teal, Oldsquaw, King Rail, Common Gallinule, Buff-breasted Sandpiper, Barn Owl, Snowy Owl, Saw-whet Owl, Chuck-will's-widow, Bewick's Wren, Evening Grosbeak and Sharp-tailed Sparrow.

Perhaps 250 to 260 species could be seen by one person in Iowa in a year, but this would require careful planning, extensive effort, cooperation from many birders and cooperative weather conditions.

Out-of-state trips cut into our concentration on the annual Iowa list. Kent spent three weeks in May and June in Alaska, and Halmi visited British Columbia and Montana in April, Churchill in June-July, and the West Coast in early September to become the only Iowa member of the "600 Club" (613 species in the ABA area). Shires was in Europe during July and August.

Although the Iowa Field Check List contains only 20 fewer species than the Minnesota Field Check List (275 vs. 295), we do not think this means that anyone could see only 20 fewer species in Iowa than Kim Eckert's annual Minnesota list for 1977. The Minnesota list contains 11 northern species, 10 associated with the Great Lakes, and 11 western species not on the Iowa list, while the Iowa list contains 12 southern species not on the Minnesota list. In addition to the greater likelihood of strays from the west, north and Great Lakes, Minnesota also has the advantage of more nesting species, more active birders in the state, and an excellent migrant trap in the Duluth area. Nevertheless, we feel that extending the Iowa annual list total offers a significant challenge.

(Ed. note - Without trying for a high yearly list within Iowa, I observed 216 species in 1978. If there is interest we could compile yearly lists in I.B.L.)

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CHRISTMAS COUNT



W. ROSS SILCOCK
MALVERN

Even though a record 34 localities reported this year, the only new count was Eldora, but there were three returnees from previous years: Cedar Falls, Spirit Lake, and Wapsipinicon River Valley (a weather casualty last year). The only count from last year not reporting was Mason City, where perhaps everyone is frozen. Davenport, for the 26th straight time, led all counts with 69 species, but the last two years must be making them nervous. Due to the toughness of the Cedar Rapids compiler in eliminating three species for insufficient documentation, his count just failed to dislodge Davenport. Shenandoah also had 68 species, due to a good waterfowl count, and Dubuque was fourth with 64. These top counts must be glad waterfowl don't like Iowa City, as that locality was fifth with 60 species despite a lack of duck species.

This year also saw by far a record show of observers: 556, compared with the previous record of 484 in 1976. This is a healthy trend, allowing more parties (a record 195 this year) and thus better coverage and more statistically significant data for use in future analyses.

Despite these healthy factors, the total species list of 115 failed to meet the record 116 set in 1975. The reasons why a new record was not set are discussed below.

Species Comments

Two species were reported which would have made a total of 117 and set a new species record. These were not included because of absent (Turkey Vulture) or insufficient (Swainson's Hawk) documentation. One of the species eliminated at Cedar Rapids because of failure of the observer to supply details was Greater Scaup, an entirely plausible species where waterfowl are present in late fall and early winter, especially in eastern Iowa. See under "Notable Misses" below for species seen during the count period and others which were missed this year.

In general, documentation is markedly improved, for which I am very appreciative. Compilers have the responsibility of gathering details on unusual or rare sightings and deciding whether to include them in their count tabulation. Last year I went into some detail about Swainson's Hawk sightings in Iowa in winter. At the risk of being boring, herewith an addendum: Taking into account the fact that this is a species not listed for winter in Iowa or any of the surrounding states nor as far south as Oklahoma, Arkansas, or Louisiana, a somewhat incredible 18 birds have been reported (and generally accepted) in Iowa CBC's through this year. No details were provided for nine of these, and details for four more were insufficient to eliminate Red-tailed Hawk. This leaves five birds for which the details equivocally raise the possibility of a winter Swainson's Hawk. Two birds at Des Moines in 1961 had "pale wing linings and dark flight feathers" and were in an area where the species had bred that summer. These birds also had the usual characteristics considered to be diagnostic of Swainson's but which in fact are commonly seen in Red-tails in winter (dark breast with no belly streaks or underside streaking; barred or pale undertail; slight dihedral in flight). One at Rathbun in 1975 had "light and darker contrasting of the underside of the wings", but this description is not specific enough to characterize a Swainson's. There were two reported from Omaha this year (by different observers), both possessing pale wing linings and dark flight feathers. One of these was a dark bird, and it is conjectural whether this field character holds up with dark birds. Presently I do not feel qualified to state unequivocally that this contrasting underwing pattern is completely diagnostic of Swainson's Hawk. Certainly it is not sufficient to allow what would be tantamount to a state seasonal record, considering, as stated above, that this species is not accepted as a winter bird in Iowa and surrounding states. Finally, I would welcome comments on this problem.

Two counts reported Ruby-crowned Kinglet, neither with details. As this species is rare in winter in Iowa, documentation should be provided.

The meadowlark dilemma continues, with northwestern counts probably correctly reporting all Westerns and some southeastern counts more questionably reporting all Easterns. Those birds which can be identified by call (this method is most reliable, as discussed in Bent's Life Histories: try to listen to some meadowlarks this summer whose songs you can hear to get a feeling for the calls), song, or even plumage should be listed by species, and the rest as "Meadowlark sp." There is probably a significant movement of Westerns south and east in winter in Iowa. Even a few of the breeding meadowlarks in South Dakota are Easterns.

As far as sparrows are concerned, the situation here is much improved. The only Field and Vesper Sparrows reported were in the south and east, where a few undoubtedly occur in winter. Documentation for sightings from other areas is required, however. Lincoln's Sparrow was well-described from both areas reporting it, and, as expected, no Chipping Sparrows are reported.

Addendum to Table

Some submitted observations do not fit well into a table based on species, and are therefore listed here. Additional races are listed numerically in the table (Flickers, Juncos) as well as here. Where identification to species was not made, the sighting is also listed here (Duck sp., etc.). In such cases however, where failure to list a sighting in the table would deprive a count of a species, observations were assigned arbitrarily to a species in the table (Gull, sp. at Burlington was listed as Ring-billed in the table).

Duck sp.	Omaha	4676
Gull sp.	Burlington	12 (Listed as Ring-billed)
Buteo sp.	Iowa City	1
	Omaha	2
	Yellow River Forest	3
Owl sp.	Iowa City	2
Red-shafted Flicker	Omaha	2 (Listed as Common)
Shrike sp.	Dubuque	1 (Listed as Loggerhead)
	Marble Rock	1 (Listed as Loggerhead)
Blackbird sp.	Omaha	32
Oregon Junco	Omaha	2 (Listed as Northern)

Best Birds

Based on past CBC data, and in approximate order of merit, these were:

Marsh Wren: Third CBC record, but the first for 24 years. Brown's Annotated List gives a Jan. 2, 1955 record, and several were counted this year at Squaw Creek.

Gr. White-fronted Goose: Seen two years in a row, but only the third CBC record. Probably previously overlooked among other geese.

Yellow-headed Blackbird: Fifth CBC record. One was also at a Marshalltown feeder during count period, but was not recorded on county day.

Osprey: Seventh CBC record and first for seven years. Two were reported, with best details from Iowa City. The Rathbun bird was at close range and photographed, but the photo has not been seen.

Merlin: Ninth CBC record, but only the third in the last 10 years.

Notable Misses

Most significant in this category were two species reported during the count period but not seen on count day. A Townsend's Solitaire was at Des Moines and Am. White Pelicans at Keosauqua, on the Des Moines River. There have been four previous CBC records of the Solitaire, but the only previous CBC record of Am. White Pelican was the sedentary loner on the Mississippi River in 1975.

Red-breasted Merganser was not reported this year, even though it has been seen nine of the last 10 years. Red Crossbill (seven of the last 10 years) also was not reported, but neither were many other winter finches.

Diurnal Raptors: After last year's high populations of Red-tails, Rough-legs, and Bald Eagles, this year saw a return to normal levels for the latter two, while Red-tails stayed high. In terms of Birds Per Party (BPP; figured on a statewide basis), there were 2.7 Red-tails (same as last year); 0.6 Rough-legs (1.1); and 2.0 Bald Eagles (3.2). Prior three-year averages for these species are 2.1 for Red-tails, 0.7 for Rough-legs, and 2.35 for Bald Eagles. (Editor's Note -- BPP is somewhat biased as some counts include up to half feeder parties but this number is not listed.)

Gallinaceous Birds: Perhaps the big story of this year's CBC is the apparently incredible increase in the Gray Partridge population from a three-year average of three birds (absolute count) to this year's total of 291. There were even 7 at Iowa City (considered by Halmi not to be locally raised). Perhaps the population is at a peak and range expansion is taking place. Ring-necked Pheasant also increased dramatically and surprisingly in light of the weather conditions the past two winters, more than doubling the last three years' average BPP. Is it possible that some pheasant and partridge are entering the state from the north and west as Prairie Chickens once did? The C. Bobwhite, primarily more southern in distribution, maintained a steady population.

Mourning Dove: This species was at normal levels after last year's decline, which is also surprising in light of the heavy snow cover in Iowa this winter.

Woodpeckers: Three species are steadily increasing in numbers, suggesting an increase in breeding populations also. Pileated Woodpecker shows the largest increase, having doubled its numbers in three years. Both the Hairy and Downy Woodpeckers are increasing also, but more so the Hairy. In terms of BPP, the Hairy has increased each year for the last four years (1.6 to 2.8), as has the Downy (8.0 to 11.8). As can be seen, the Hairy is increasing at a greater rate. Red-headed Woodpecker remained at a low level of 0.8 BPP compared with the high in 1976 of 6.1.

Field Flocking Birds: Included here are Horned Lark, Lapland Longspur, and Snow Bunting, but see meadowlarks, below. All maintained their very high levels of last year, even increasing in the case of the Snow Bunting. Horned Lark had 36 BPP versus 33 in 1977 and 8 in 1976; Lapland Longspur 9.1, 11.4 and 1.5; and Snow Bunting 4.6, 3.75 and 1.1. Heavy snowcover and cold weather north of Iowa has probably caused this phenomeon.

Carolina Wren: This species has declined disastrously due to severe winters. From 29 birds reported in 1976, there were only three this year, a decline of some 95 percent in terms of BPP. Amazingly, however, one was at Sioux City!

American Robin: This species returned to usual low levels (0.9 BPP) from last year's high of 7.2 BPP.

Golden-crowned Kinglet: Despite much concern (in, for example, **American Birds**) about winter's effect on this species, it recovered its normal levels this year (58 birds versus 18 last year).

Meadowlarks: Taken as a group, meadowlarks were about double their levels of their prior three-year average this year (6.9 versus 3.2 BPP). This is probably related to the increase in Field Flocking Birds (see above).

Sparrows: Several observers noted a decline in American Tree Sparrow, especially relative to Northern Junco. While the latter remained constant in numbers (79 BPP versus the prior three-year average of 78), Tree Sparrows declined to 41 BPP from 61 last year and 87 and 81 the previous two years. Thus there seems to be a three-year decline in progress. Perhaps harsh winter conditions have reduced the population, or at least sent them further south than usual. However during the normal migration periods the population seemed low, suggesting that indeed the population is reduced. For some species, wintering habitat conditions may determine subsequent breeding population levels more than conditons during the breeding period itself. Perhaps this is happening to the Am. Tree Sparrow. Harris Sparrow was also reduced in numbers from 3.9 BPP (prior three-year average) to 1.7 this year.

1. ALLEMAN (15 mile diameter circle centered on Alleman and including Big Creek Lake, Chichaqua Wildlife Refuge, Jester Park, parts of Saylorville Lake, and areas between these locations.) Dec. 26; 7 a.m. to 6 p.m. Temp. 20-25; wind: 5 mph from N. Overcast, 1 to 2 inches snow on ground. Lakes frozen but some open water in creeks.

Observers (3) in 1 party: Dean Mosman (compiler), Diane and Mike Mosman.

Other species seen during census period: Song Sparrow, Meadowlark sp. and Purple Finch.

Comments: Tape recordings used to attract owls, Red-headed Woodpeckers missing for second year. Also sightings of Purple Finch and Pine Siskin down during count period.

2. BURLINGTON (15 mile diameter circle centered on highway 99 at Flint Creek bridge and including Lock and Dam 18, Carthage Lake, Mississippi River bottoms, and part of Iowa Army Ammunition Plant.) Dec. 30; 6:30 a.m. to 5:15 p.m. Temp. 10-21; wind: 5-10 mph from W. Overcast, generally no snow cover, Mississippi channel open, other water frozen; snow beginning mid-afternoon.

Observers (13) in 5 parties: Tom Francis, Charles, Christopher and Jane Fuller, Roger Gugeler, Harold Linder, Anna Mae, Caryn and Peter Lowther (compiler), Gil and Jeannette Miller, Douglas Prier and Olive Sullivan.

Other species seen during census period: Ring-necked Pheasant, Common Grackle.

Comments: Tape-recorded owl calls were used by 2 parties. We again have access to IAAP after several years of restriction.

3. CEDAR FALLS (all points within a 15-mile diameter circle to include Black Hawk Park, Falls Access area, George Wyth State Park, Greenbelt Park, Hartman Reserve, Robertson Bird Sanctuary, UNI Biology Reserve.) Dec. 31: 7 a.m. to 3 p.m. Temp. 3-10; wind: 5-25 mph from NW. A.M. overcast, moderate snow; P.M., overcast, moderate snow; snow cover 3-6 inches; water partly open; wild food crop good.

Observers (9) in 3 parties: Randy Betsworth, Dave Burman, Antoinette Camarata, Russell Hays, Francis Moore (compiler), Bob Myers, Ted, Tom and Tom, Sr. Stone.

Details of unusual observations: Complete details submitted.

Other species seen during census period: Green-winged Teal, American Wigeon, Hooded Merganser, Red-winged Blackbird.

Comments: We had a bright overcast day for the Cedar Falls count with light snow falling at the beginning of the count, and steadily growing heavier until it had developed into a moderate snow which stayed with us the remainder of the day. The blizzard-like conditions forecast for the count day held off until after that evening and through that night, luckily. Overall a very good count and lots of enthusiasm was shown for a count that has not been held since 1971.

4. CEDAR RAPIDS (Open fields, open woods, river, streams, lake, orchards, nurseries, cemetery. 15 mile circle centered on Federal Bldg. as in past.) Dec. 16; 4:30 a.m. to 5 p.m. Temp. 22-33; wind: 5-30 mph from SE. Clear all day, 3 to 11 inches snow, water partly open.

Observers (44) in 15 parties: Names illegible. Weir Nelson, compiler.

5. CHEROKEE (15 mile diameter circle centered on U.S. 59, 2 miles south of Larrabee to include Martins Access, Little Sioux River, Mill Creek and the Cherokee Sewage Lagoons.) Dec. 17: 7:30 a.m. to 4:30 p.m. Temp. 10-31; wind: 10 mph from South-SW. Partly cloudy, 100 percent snow covered; streams 95 percent ice covered. Lakes 100 percent ice covered.

Observers (15) in 4 parties: Horace Autenreith, Sandy and Joe K. Beals, Bertie and Joe Beals, Judy and Dick Bierman (compiler), Marion Brewer, Ray Cummins, Carol and Larry Farmer, Brett Oetken, Arlene Sweet, Shirley Wahlstrom, and Mildred Thompson at feeder.

Other species seen during census period: Red-headed Woodpecker.

Comments: Tape used to attract C. Screech Owl. A probable Northern Mockingbird was observed by our most reliable birder. His being only 90 percent sure justifies mention but not confirmation.

6. CLINTON (15 mile diameter circle centered on Elk River Jct., Iowa, same as previous years.) Dec. 31: 6 a.m. to 4:15 p.m. Temp. 15-20; wind: 10-20 mph from N. Overcast, moderate snow all day, 7"-12" snow on ground, river 95 percent ice covered.

Observers (9) in 4 parties: Brad Boyd, Linda Caldwell, Fred Leshner, Steve Medema, Mary Lou Petersen, Peter C. Petersen (compiler), Ernie and Sean Sadler and Clark Scott.

Comments: Visibility cut greatly by snow. Hours in the field cut by poor driving conditions. Birds reasonably active in A.M. but not in P.M.

7. DAVENPORT (15 mile diameter circle, centered on former toll house location on the I 74 bridge, same as previous years.) Dec. 17: 5 a.m. to 5 p.m. Temp. 22-35; wind: 5-15 mph from SW. Clear, ground covered by 4" old snow, river 75 percent ice covered.

Observers (37) in 20 parties including 10 at feeders: Mrs. Fred Adams, Carl Bengston, Brian, Corey and Lewis Blevins, Brad Boyd, Linda Caldwell, Jane Carpenter, Ronald Christianson, Ruth and Walt Dau, Dale Dickinson, Elton Fawks, Margaret Flesher, Allan Hahn, Mary Rose Hawkinson, Dick Hazel, Marge Hollen, Dick and Mary Knox, Fred Lorenzen, Mrs. Frank Marquis, Ed and Gladys Meyer, Stan Nelson, Mary Lou Petersen, Peter C. Petersen (compiler), Mrs. Frank Roseman, April, Ernie and Sean Sadler, Clark Scott, Mr. and Mrs. Leonard Swanson, Ralph Troll, Betty Ven Horst, Gladys Wallace.

Details of unusual observations: Double-crested Cormorant, Golden Eagle and Glaucous Gull documented.

Comments: Am. Tree Sparrows very low, new high for Pine Siskins, tapes used for owls before dawn and during day for small land birds.

8. DECORAH (A 15 mile diameter circle centered on NE corner S24; T99N, R8W.) Dec. 30: 6 a.m. to 5 p.m. Temp. 6-17; wind: 10 mph from NW. Partly cloudy; 2-5 in. snow cover; streams partly open.

Observers (14) in 6 parties: Francis Arness, Alan Branhagen, Ruth Fretheim, David and Oivind Hovde, Dave and Pearl Howell, Darwin Koenig (compiler), Paul Koenig, Andrew and Dale Nimrod, Arnold and Delores Rohm, Joe Schaufenbuel.

Details of unusual observations: Yellow-rumped Warbler -- yellow rump and flank patches, white throat, two white wingbars; distance of 30 ft. in good light. Fox Sparrow -- rufous tail and rump, large size, heavily streaked underparts; distance of 40 ft. in good light.

Other species seen during census period: Sharp-shinned Hawk.

9. DES MOINES (15 mile diameter circle, centered on 63rd & University, including Maffitt Reservoir, Saylorville Dam, Ashworth-Greenwood Park, Waterworks Park, Easter Lake.) 7:30 a.m. to 4 p.m. Temp. 32 - 44; wind: 10 mph from SW. Mostly cloudy, 0-4" snow cover.

Observers (15) in 4 parties: Names not given, Wm. A. Boller, compiler.

Other species seen during census period: Evening Grosbeak, Townsends Solitaire.

10. DeSOTO NATIONAL WILDLIFE (15 mile diameter circle centered on DeSoto Refuge. NWR Headquarters, Missouri Valley, Ia., including all of DeSoto Refuge, Wilson Island and Ft. Calhoun, Neb.) Dec. 21: 6:45 a.m. to 5:15 p.m. Temp. 12-36; wind: calm. Mostly sunny with $\frac{1}{2}$ to 2 inches of snow on ground.

Observers (20) in 5 parties: Names not given, David Menke, compiler.

Details of unusual observations: Documentation for Hermit Thrush included.

11. DUBUQUE (15 mile diameter circle with center at Center Grove Cemetery and including Linwood, Industrial Island, John Deere, Durango, Peosta, Swiss Valley, Massey, East Dubuque.) Dec. 16: 7 a.m. to 5 p.m. Temp. 21-35; Partly cloudy, 4" old crusted snow, river partly open, wild food crop fair.

Observers (25) in 9 parties, plus 2 at feeders: Robert Beck, Douglas Cox, Frieda and George Crossley (compiler), Jim Eischeid, Peter Ernzen, Adele, John, John Jr., and Mark Feller, W. R. Gruwell, Harry Herold, William Herrmann, Darwin Koenig, Brian Larson, Debi Link, John C. Miller, Ronald Neu, James Rooks, Joe Schaufenbuel, John Stampe, Neil Trevethan, Robert Walton, Wauneta Wiederaenders, Jan Williams.

Details of unusual observations: Field and Vesper Sparrows and N. Goshawk were documented; White-crowned and White-throated Sparrows and Merlin have been at feeders, and Rufous-sided Towhee and Yellow-rumped Warblers were seen by Darwin Koenig and Joe Schaufenbuel.

Comments: Ground had been covered for two weeks with 5" hard-crusted snow causing feeding difficulties.

12. ELDORA (15 mile diameter circle centered on Gifford and including Daisy Long Park, Pine Lake area, Iowa River valley, Steamboat Rock, Reece Park, roadsides and fields in between.) Dec. 27: 8 a.m. to 4:30 p.m. Temp. 9-29; brisk winds developed during the morning from the SE. Overcast, 75 percent light snow cover, river 80 percent ice covered; lake completely frozen over; below dam open stream to river.

Observers (2) in 1 party: Ramona Sommerlot (compiler) and Garnita Seward.

Details of unusual observations: Rufous-sided Towhee (m) in bush 3' off ground near feeding area -- seen at range of 15'. Two Sharp-shinned Hawks hunting over a weedy field near wood margin of river. Field full of Northern Junco and Am. Tree Sparrows. One hawk landed in a tree 18 to 20' from car. Noted small size, completely dark grey above with square tail.

Other species seen during census period: Belted Kingfisher, Snow Bunting, Lapland Longspur, Meadowlark (sp.), Evening Grosbeak and Mourning Dove.

13. IOWA CITY (15 mile diameter circle centered on intersection of U.S. 218 and F28, and including parts of Iowa City, Lake Macbride, Coralville Reservoir and Kent Park) Dec. 16: 6 a.m. to 5 p.m. Temp. 22-36; wind: to 35 mph from W-WNW. Partly cloudy to mostly clear; 4-6" of snow; river and some creeks open; reservoir and lakes frozen.

Observers (33) in 8 parties: E. Beale, J. Becker, C. Bendorf, M. C. and N. Brown, R. DeCoster, E. and M. Folk, J. and K. Fuller, G. Garton, T. Gorrell, N. Halmi (compiler), J. Hargrove, D. Hartle, M. L. and J. Huit, J. Huntington, T. Kent, J. Kern, A. Kuhn, M. and A. Lewis-Beck, M. and C. Newlon, P. Petersen, J. Peterson, E. and A. Sadler, T. Shires, T. Staudt and R. Williams.

Details of unusual observations: Documentation included for unusual species. These species new to count: Osprey, Gray Partridge, Hermit Thrush, Loggerhead Shrike, Field Sparrow. Other uncommon species; Great Blue Heron, Wood Duck, N. Shrike.

Comments: Gray Partridge first ever in area. No local release, no game farms anywhere near. Seems range extension of N.W. Iowa population. Remarkable high

counts for Red-tailed Hawk, Ring-necked Pheasant and Am. Crow, complete absence of Red-headed Woodpecker unusual. Am. Tree Sparrow count quite low (note low Am. Tree Sparrow-N. Junco ratio).

14. JAMAICA (15 mile diameter circle centered 1½ miles west & 4 miles south of Jamaica, Iowa, covering northeast corner of Guthrie County and portions of Greene and Dallas Counties, and areas, Lake Panorama, Long Pond, fields, pastures, streams, RR tracks and a portion of the North Raccoon River.) Dec. 31: 5 a.m. to 5:30 p.m. Temp. 6-9; wind: 25 mph from Northwest. Three-inch snowfall during count day, blizzard conditions at times with a strong northwest wind. Rivers and lakes frozen over except stream through Springbrook State Park and the river area below the dam at Lake Panorama.

Observers (17) in 4 parties: Mats Aberg, Gene Burns (compiler), Marilyn Burns, Barney Cook, Raymond Cummins, George Hemmen, Todd Isaacson, Dick Mooney, Pauly Mooney, Paul Martsching, Greg Nelson, Paul Nelson, Steve Patterson, Mark Rouw, Robert Rye, Dr. Wm. A. Seidler, Don Seivers, plus 14 at feeders.

Other species seen during census period: Barred Owl, Short-eared Owl, Belted Kingfisher, Loggerhead Shrike and Red-winged Blackbird.

Comments: Tape-recorder used for attracting owls.

15. KEOSAUQUA (15 mile diameter circle centered on Keosauqua, and including Lacey-Keosauqua State Park, country roads, Des Moines river bottoms and bluffs.) Dec. 29: 7:30 a.m. to 4 p.m. Temp. 32-37; wind: 5-10 mph from SSE. Overcast, with occasional light rain; ground clear; river open, but completely edged with ice chunks.

Observers (3) in 1 party: Kathy Fisher (compiler), Oneita Fisher, Mike Zahs, plus Mr. and Mrs. Lawrence Daugherty, Dick Fisher, Mrs. Joe Salter, and Mr. and Mrs. Kenneth Wiley at feeders.

Details of unusual observations: Of the 12 eagles counted, 7 were immatures; all were along the river between Kilbourne and Lacey-Keosauqua. The Lapland Longspurs were with a mixed flock of sparrows and juncos in brushy, weedy cover. The Red-breasted Nuthatch has been coming to our feeders for the past month.

Other species seen during census period: Canada Geese, Evening Grosbeaks, Common Grackle, American Kestrel and Am. White Pelicans (they were in the river near Pittsburg).

Comments: Because of the mild, open conditions, the birds - especially the Am. Tree Sparrows and Purple Finches - were widely scattered. Today (the 30th), with snow on the ground and much colder temperatures, they're flocking to our feeders.

16. LAMONI (15 mile diameter circle centered at junction of I-35 and U.S. 69 East of Lamoni, including farmland, pasture, and woodland.) Dec. 26: 8 a.m. to 5 p.m. Temp. 22-26; wind: 10 mph from NW. Partly cloudy to clear, ground bare, lakes and ponds frozen, stream 80 percent frozen.

Observers (9) in 4 parties: Leslie Barnett, Richard DeLong, Mrs. W. C. DeLong, Bill, David and J. Donald Gillaspey (compiler), Dan Long, Mr. and Mrs. Ralph Silver.

Other species seen during census period: Mourning Dove, C. Screech Owl, Short-eared Owl, B. Kingfisher, Horned Lark and Rusty Blackbird.

Comments: Sapsucker had been at Silver feeder for a week. Horned Larks abundant along gravel roads after snowfall after count day.

[illegible]

Red-headed Woodpecker	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
Yellow-bellied Sapsucker	5	1	33	24	15	2	26	45	9	5	33	2	1	25	2	7	5	11	9	2	2	4	23	1	1	9	15	4	28	21	6	18	51	10
Harry Woodpecker	27	83	46	168	83	35	117	84	137	84	137	84	137	84	137	84	137	84	137	84	137	84	137	84	137	84	137	84	137	84	137	84	137	84
Downy Woodpecker	6	29	76	2	368	41	2	1009	2	14	5	38	1074	36	55	40	63	34	91	87	175	84	1385	10	30	36	83	117	92	21	151	81	18	110
Horned Lark	23	68	30	182	63	63	144	152	48	83	150	28	1074	36	55	40	63	34	91	87	175	84	1385	10	30	36	83	117	99	31	53	81	18	110
Blue Jay	20	78	172	654	246	180	465	181	585	56	297	278	32	1772	125	34	208	88	48	114	121	273	86	448	15	17	91	33	162	101	274	271	53	107
American Crow	48	116	320	439	152	56	305	131	190	117	278	32	1772	125	34	208	88	48	114	121	273	86	448	15	17	91	33	162	101	274	271	53	107	152
Black-capped Chickadee	3	28	57	59	27	62	32	11	11	35	90	15	54	62	9	31	32	26	40	25	29	64	79	3	3	10	4	31	3	35	36	8	31	19
Tufted Titmouse	12	25	73	91	51	21	62	78	33	35	90	15	54	62	9	31	32	26	40	25	29	64	79	3	3	10	4	31	3	35	36	8	31	19
White-breasted Nuthatch	8	1	3	6	2	1	8	18	7	2	4	3	4	4	1	1	2	14	1	2	1	1	3	12	1	1	1	6	10	17	1	1	1	1
Red-breasted Nuthatch	1	1	28	6	2	1	8	18	7	2	4	3	4	4	1	1	2	14	1	2	1	1	3	12	1	1	1	6	10	17	1	1	1	1
Brown Creeper	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Winter Wren	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Carolina Wren	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Northern Mockingbird	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Brown Thrasher	1	1	75	3	25	4	4	4	3	1	7	1	1	1	26	1	1	3	5	5	2	1	1	1	1	2	2	7	2	3	1	1	1	
Hermit Thrush	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Eastern Bluebird	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Golden-crowned Kinglet	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Ruby-crowned Kinglet	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Bohemian Waxwing	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Cedar Waxwing	5	5	210	76	173	20	273	26	216	7	1	1	1	64	12	150	15	21	46	87	1	1	1	1	2	6	1	2	247	8	1	1	1	
Northern Shrike	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
European Starling	175	585	171	1446	1214	281	2047	222	1171	1005	354	1	157	1030	157	149	131	309	211	427	1489	383	791	1690	71	150	878	172	595	1275	804	596	191	279
Yellow-rumped Warbler	360	1214	453	1436	961	690	1779	1093	653	3271	1228	408	676	660	391	353	1583	185	584	1563	887	975	1045	887	700	1345	572	670	672	666	840	282	827	303
House Sparrow	28	2	2	142	1	15	15	6	145	15	23	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Eastern Meadowlark	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
Western Gull	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Meadowlark sp.	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Yellow-headed Blackbird	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
Red-winged Blackbird	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Rusty Blackbird	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
Brewer's Blackbird	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Common Grackle	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Brown-headed Cowbird	198	122	396	19	86	305	97	63	245	16	186	48	76	52	301	16	80	221	186	178	139	48	52	78	49	182	59	63	63	63	63	63	63	63
Northern Cardinal	54	198	122	396	19	86	305	97	63	245	16	186	48	76	52	301	16	80	221	186	178	139	48	52	78	49	182	59	63	63	63	63	63	63
Evening Grosbeak	20	4	10	31	37	6	207	21	1	62	8	10	18	29	30	2	12	2	24	37	33	9	42	2	2	3	3	3	3	3	3	3	3	3
Purple Finch	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Common Redpoll	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Pine Siskin	73	9	23	20	77	129	87	73	215	16	10	8	1	7	7	24	33	7	59	132	59	240	2	19	2	27	9	39	100	107	65	45	18	33
American Goldfinch	83	89	44	144	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
House-sparrowed Towhee	168	1003	153	968	512	184	545	505	180	579	457	289	882	788	204	269	390	62	371	354	924	537	571	76	506	272	121	679	566	1047	103	57	596	569
Northern Junco	91	713	32	169	47	48	130	425	151	43	100	1	32	32	4	12	9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
American Tree Sparrow	20	11	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Field Sparrow	20	11	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Harris Sparrow	20	11	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
White-crowned Sparrow	2	1	1	1	1	1	1	1	1	1	1</																							

17. LOST NATION (15-mile diameter circle centered at a point $1\frac{1}{2}$ miles south of Lost Nation, Ia., and including Eden Valley Refuge, and a stretch of the Wapsipinicon River) Dec. 28: 6:30 a.m. to 5 p.m. Temp. 25-30; wind: 15-20 mph from W-NW. Partly cloudy, no precipitation, heavy snow cover, little open water.

Observers (11) in 4 parties, plus 4 at feeders: Bob Bryant (compiler), Esther Copp, Jay Gideonsen, Rhonda Heneke, Beulah Lohman, Harold Lohman, Pete Petersen, Janet Ruprecht, Jeanette Ruprecht, Bob Schaefer, Mildred Schutt, Leroy Schutt, Greg Smith, Charles Wentworth, June Wentworth.

Details of unusual observations: Norther Shrike seen $2\frac{1}{2}$ mi. North of Toronto, Clinton Co., Ia. near a picked cornfield bisected by gravel road, perched on wire, and then flew. Seen by Pete Petersen, Jay Gideonsen, documented.

Other species seen during census period: Barred Owl.

Comments: Tape recorders were used to attract both owls and birds.

18. MARBLE ROCK (Area same as previous years) Dec. 26: 7 a.m. to 4:30 p.m. Temp. 12-18; wind: 2-8 mph from NW. Overcast in early A.M. clear through late A.M. and all afternoon, at least 6" snow cover in all areas. A great deal of open water on the Shell Rock and all streams checked.

Observers (2) in 1 party: Pearl Knoop and Tom Staudt (compiler).

Other species seen during census period: Snow Bunting and Great Blue Heron.

Comments: Shrike seen at a good distance, no chance to determine species. No Red-headed Woodpeckers were seen last year so we were pleased with the two found on this count, one was immature. The number of Brown Creeper seen this year surpassed the combined total for the previous four years of the count here. No idea where the Am. Tree Sparrows were.

19. MARSHALLTOWN (15 mile diameter circle centered on E27 one mile east of highway 14 and including Union Grove Lake, same as previous years.) Dec. 18: 8 a.m. to 4 p.m. Temp. 17-38; wind: 5 mph from NW. Clear, three inches of snow on the ground, a hard crust on the snow. Lake 99 percent frozen, Iowa river one-third open where water treatment plant enters the river.

Observers (26) in 5 parties, plus 5 at feeders: Mr. and Mrs. Geo. Crowther, Mr. and Mrs. Norm Eige, Freida Ellerbeck, Laura Glasgow, Mr. and Mrs. Kenneth Graham, Wendell Graham, Mr. and Mrs. Carl Hollingsworth, Marlys Huff, Mr. and Mrs. John King, Carl Kurtz, Mr. and Mrs. Lester Lawrence, Sara and Carol McMillan, Mrs. John Mowry, Mr. and Mrs. James Plambeck, Mr. and Mrs. Les Ralston, Mr. and Mrs. Ed Savage (compiler), Mr. and Mrs. F. S. Wheeler, Mr. and Mrs. Jim Wignall and Ruth Zorn.

Details of unusual observations: Northern Mockingbird seen within city limits at the Miles McClurg residence. The Mockingbird was seen at least twice after the count. The Lincoln Sparrow was observed at the edge of a brushy area located behind water treatment plant, there were also tall weeds in the area. The bird was seen twice by 3. The bird was smaller than the Song Sparrow, tail shorter, streaks fine, one saw the buff band and then white on breast. We were less than 50 ft. from the bird.

Other species seen during census period: Evening Grosbeak, Yellow-headed Blackbird (F) coming to a feeder at the Kenneth Eckles residence, identified by Ruth Zorn, Long-eared Owl and Barred Owl.

20. MUSCATINE (15 mile diameter circle, centered on Lock and Dam 16, same as previous years.) Dec. 23: 6 a.m. to 5:15 p.m. Temp. 26-37; wind: 5-15 mph from W. Partly cloudy to overcast, ground covered by 4" old snow, river 50 percent ice covered.

Observers (10) in 4 parties: Mrs. Vincent Beckey, Linda Caldwell, Alan Hahn, Bill and Tom Kent, Peter C. Petersen (compiler), April and Ernie Sadler, Clark

Scott and Tom Shires.

Details of unusual observations: Yellow-rumped Warbler closely observed and documented (BK,TK,TS).

Comments: Am. Tree Sparrows very low.

21. NORTH LINN (Open fields, wood and Park lands, River and stream sides centered on Rogers crossing intersection 2 miles west of Central City) Dec. 27: 5:30 a.m. to 5 p.m. Temp. 0-23; wind: 5-12 mph from N and SE. Clear and snow covered 2 to 10 inches.

Observers (20) in 8 parties: Wilma Boots, Robert Bradley, Norman Byers, Duane Carr, Gene Goellner, Ruth Goellner, Linda Gucciardo, Linda Kellar, Bernie Knight, Cal Knight, Lucille Liljedahl, Brian Nelson, Weir Nelson (compiler), Elaine Novak, Roberta Oppedahl, Bobbie Shaffer, Rick Snyder, Fred K. Thompson, plus (Mrs. Dudley Deen and Mr. Bill Hall) at feeders.

Other species seen during census period: Long-eared Owl.

2. OAKVILLE (15 mile diameter circle centered 4 miles E. New Boston, Ill.) Dec. 30: 7 a.m. to 5 p.m. Temp. 15-21; wind: 10-15 mph from NW. Overcast, ground covered by 4-6" old snow, river 80 percent ice covered.

Observers (9) in 4 parties: Bill Bertrand, Brad Boyd, Linda Caldwell, Ernie and Kay Carlson, Lynn McKeown, Peter C. Petersen (compiler), Ernie Sadler and Clark Scott.

Comments: Am. Tree Sparrow count normal in this area.

23. OMAHA, NEBR. (15 mile diameter circle with Offutt Air Force Base Lake as the center including Lake Manawa, floodplain and bluffs on Iowa side of Missouri River, Plattsmouth Refuge and Fontenelle Forest) Dec. 16: 3:30 a.m. to 5 p.m. Temp. 22-37; wind: 12 mph from West. Mostly sunny with 3-4 inches of snow cover; lakes and ponds frozen. Missouri River and some streams open.

Observers (43) in 11 parties: Steve Bellinghiere, Diane Berlett, Reid Boyle, Tanya Bray, Duane Bright, Hal Chase, Evelyn Conrad, R. G. Cortelyou, James Delehant, John Dinan, Jim Glather, Donna Gnadt, Marg Graf, Ruth Green, Janet Greer, Alan and Betty Grenon, Mike Heaney, Thomas Hoffman, Mary Huebner, Clyde, Emma and Gladys Johnson, Diane Jones, Eunice and JoAnne Kawamoto, Jim and Sandy Kovanda, Marina Meier, Babs and Loren Padelford, Margret Perry, Neal Ratzlaff, Linda Riner, Harold and Marilyn Rock, Elva Sheard, Lorraine Shorney, John and Marlene Weber, Melba Wigg (compiler), Gertrude Wood and Rick Wright.

Details of unusual observations: Good details submitted.

25. OTTUMWA (A 15 mile diameter circle centered in Ottumwa, Wapello Co., Iowa.) Dec. 30: 7 a.m. to 4:30 p.m. Temp. 8-11; wind: 15-25 mph from NNW. Overcast, in the afternoon it started rain turning to freezing rain to snow. Very little open water except part of Des Moines River.

Observers (8) in 4 parties: Blossum Hallberg, Nelson Hoskins (compiler), Randy Hoskins, Don and Elaine Johnson, Joan Schooley and Madeline and Gary Wymore.

Details of unusual observations: The Vesper Sparrow was identified by the white outer tail feathers, sighted by Nelson Hoskins.

Comments: The roads were very slippery which reduced the number of participatns in the count. We also missed having Charles and Darlene Ayers on the count this year. Charles is recovering from a light stroke and a heart attack.

26. PRINCETON (15 mile diameter circle, centered at Folletts, same as previous years.) Dec. 26: 5:30 a.m. to 5 p.m. Temp. 8-24; wind: 5-20 mph from NW. Mostly clear, occasionally overcast with snow flurries. 5" old snow on ground, river 80 percent ice covered.

Observers (9) in 3 parties: Craig and Linda Caldwell, Elton Fawks, Margaret Flesher, Peter C. Petersen (compiler), April, Ernie and Sean Sadler, and Clark Scott.

Comments: Am. Tree Sparrows very low.

27. RATHBUN (A 15 mile diameter circle centered 1 mile south of the mid-section of Rathbun Lake and including the dam area and the Wildlife Refuge.) Dec. 16: 7 a.m. to 5 p.m. Temp. 28-35; wind: 10-30 mph from NW. Sunny to partly cloudy, no snow cover, lake and open water only in center of lake where ducks kept it open.

Observers (23) in 9 parties: Jack Coffee, Enid Coulter, Bill and Doris Cummings, Catherine Evans, Pearl Evans, Sonny and Earlene Gould, Bill and Marj Heusinkveldt (compiler), Grace Hill, Nelson and Randy Hoskins, Don and Elaine Johnson, Tom and Becky Johnson, Kay Malmberg, Maxine Morrow, Elva Neighbour, Bondene Rissler, Charlotte Scott and Gary Wymore.

Details of unusual observations: Osprey - good sighting by several observers, documented.

28. RED ROCK (15 mile diameter circle centered on the south end of the mile long bridge (Hwy. 14) - including half of Red Rock Refuge, all of Red Rock Lake and tailwaters, and Roberts creek park.) Dec. 17: 6:30 a.m. to 4:30 p.m. Temp. 8-15; wind: 10 mph from NW. Clear to partly cloudy, with 1-2 of old snow. Open water below dam.

Observers (42) in 15 parties: Eugene and Eloise Armstrong, Bob and Virginia Bell, John Bowles, Gladys Black, Margaret Brooke, Gene and Marilyn Burns, Herb and Edith Dorow, Barney Cook, Bob Engelmann, Harriet Engelmann, Paul and Mary Felsing, Bill Gilbert, Denis Goemaat, Paul Johnson, Ann Johnson, Don, Johnson, Elaine Johnson, Tom Johnson, Becky Johnson, Breck Johnson, Betsy Lyman, Andy Lyons, Paul Martscheng, Dean and Diane Mosman, Mike Mosman, Charles Mueller, Maura O'Connor, Lora Reiter, Jon Stravers (compiler), Jim Sinclair, Dennis Thompson, Rick Trieff, Gary Vale, Ron Warnet, Mary Ellen Wartars.

29. SHENANDOAH (15 mile diameter circle centered on Farragut to include Riverton and the Riverton Refuge) Dec. 16: 7 a.m. to 5 p.m. Temp. 19-34; wind: 0-30 mph from N. NW. Clear, no snow, water and streams partly open.

Observers (12) in 7 parties, plus 1 at feeder: Rebecca Bernthal, Barbara Cunningham, Mrs. Edwin Getxher, Clifford Moles, Mr. and Mrs. Wayne Phipps, Ross Silcock, Mrs. Eldon Spears, Dan Varland, Mrs. Edward Vaughn, Mrs. Donald Walters (compiler), and Mrs. Barbara Wilson.

Other species seen during census period: Short-eared Owl, Red-breasted Nuthatch and Lapland Longspur.

Comments: Highest count every taken for the area.

30. SIOUX CITY (same as previous years.) Dec. 16: 8 a.m. to 5 p.m. Temp. 26-35; wind: 10-25 mph from NE. Clear, 4 to 6 inches of snow on ground. Missouri River open, other streams frozen.

Observers (14) in 8 parties: Mr. and Mrs. Lawrence Benne, Steve Duecker, Sam Dunkle, Mr. and Mrs. Alden Erskine, Mr. and Mrs. Larry Farmer, Mr. and Mrs. Ray Kennedy, Inez Kirkpatrick, Robert Nickolson (compiler), Todd Oetken and Morgan Webb.

Details of unusual observations: Carolina Wren was observed at a window feeder by Marge Kennedy at 3536 Stone Park Blvd. in Sioux City. The bird has been coming to the feeder daily and observed at close range. The bird was also seen last winter but not during count period.

Other species seen during census period: Com. Goldeneye, Evening Grosbeak and Pine Siskin.

31. SPIRIT LAKE (15 mile diameter circle centered on Spirit Lake) Dec. 16: 8 a.m. to 5 p.m. Temp. 20-30; wind: 18-20 mph from W-N-W. 8 inches snow on level.

Observers (26) in 6 parties, names not included, Loraine Wallace (compiler).

Comments: This is our first bird count in northwest Iowa in several years and we feel it was a great success.

32. WAPSIPINICON RIVER VALLEY (Center of Sec. 2 Mayfield Twp. Bremer Co. Iowa including part of Wapsipinicon River, Sweet Marsh and Park of Seven Bridges, farmland 50 percent, woodland 50 percent.) Dec. 16: 7 a.m. to 5 p.m. Temp. 22-34; wind: 30 mph from NW. Skies mostly clear snow cover 0-3" Wildfood crops good.

Observers (9) in 2 parties, names not listed, Myrle Burk (compiler).

Other species seen during census period: Common Grackle.

Comments: Sharp-shinned Hawk and Short-eared Owl seen only 6 times in 25 Christmas Bird Counts, Mallards not usually seen in this area.

33. WESTFIELD (15 mile diameter circle centered on section 16. Sioux township, Plymouth County and including Big Sioux River bottoms.) Jan. 1: 5:30 a.m. to 5:30 p.m. Temp. -13-0; wind: 10-25 mph from WNW. Clear to sparse clouds. 0-18 inches snow cover, Big Sioux completely frozen, Broken Kettle Creek 50 percent open water.

Observers (6) in 4 parties, plus 1 at feeders. Carolyn and Lawrence Benne, Carol and Larry Farmer (compiler) and Pat and Paul Williams.

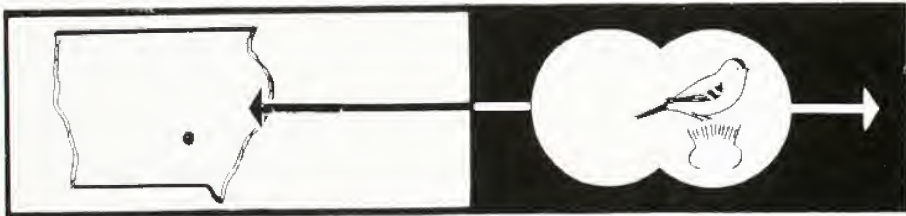
Other species seen during census period: Sharp-shinned Hawk, Northern Harrier and Am. Robin.

Comments: Meadowlark and Mourning Dove numbers high.

34. YELLOW RIVER FOREST (A 15 mile diameter circle centered on NE corner S8, T96N, R3W.) Dec. 27: 6 a.m. to 8 p.m. Temp. -9-16; wind: 5 mph from SE. Mostly cloudy; 1-4 inches snow cover; waters partly open.

Observers (16) in 5 parties: Florence Albright, Francis Arness, Elizabeth Bottorff, Alan Branhagen, Larry Farmer, Dave and Pearl Howell, Gretchen Jurs, Darwin Koenig (compiler), Pat and Paul Koenig, Marlene Michel, Andrew and Dale Nimrod, Arnold Rohm, Joe Schaufenbuel.

Details of unusual observations: Great Blue Heron -- large size, blue-gray color, long legs and bill; observed from 30 yards.



Keokuk and Mahaska Counties

KEITH & IRENE LAYTON
OAKSALOOSA, IOWA

On a recent winter morning we drove some 150 or so miles visiting most of the County Conservation Board public access areas, ponds, lakes, rivers, parks, etc., in both Mahaska and Keokuk Counties. Mahaska County is blessed with three good birding rivers. The Des Moines River leaves the tailwaters of Red Rock Lake near the Marion County city of Pella, enters Mahaska near the west center of the county and flows SE to the south center near Eddyville. It provides wonderful cover and habitat for everything from Eagles to Bank Swallows. Think of a species, look for it

awhile, and you are almost certain to find it, in proper season of course. North Skunk River enters Mahaska near the north center of the county, flows SE to the east center of the county line. It is much smaller, and has been straightened, but nevertheless flows through areas that are rough and filled with magnificent bird and wildlife cover. In the center, a medium sized river, South Skunk, flows completely across the county, entering just south of the NW corner, and leaving to enter Keokuk County a little south of midpoint. The two then flow nearly due east, join and become Skunk River near the east side of Keokuk County. All three streams provide excellent cover and prime habitat for all types of birds and wildlife. Plenty of small creeks enter the rivers, many areas are too rough and rolling to be farmed, thus being left as pastureland, brush thickets, virgin stands of mixed deciduous timber, red cedar, weed thickets, grassy waterways, swampy sections, mudflats, and so on. By following the rivers, one could expect, in season, to find practically any species of bird known to inhabit or cross Iowa during migration.

We observed many American Crows, in direct contrast to the Burns' experience in NW Iowa. We observed great flocks, estimated at from 300 to 400, in the Quercus area, near Eddyville. Good numbers were seen in flocks of 5 to 25 elsewhere on our tour. A very few years ago, a flock of 10 crows was considered unusual in this area. In the Manhattan Bridge area north of Ollie we observed flocks of perhaps 100 Horned Larks, feeding along the highway, and especially around some hog feedlots. We spotted several Red-tailed Hawks, Am. Kestrels, one Rough-legged Hawk, and many other common birds, typical of the winter season. Every area that we visited should provide a good cross section of Iowa birds occurring the proper season. Other comments are included where appropriate, following the listing that follows:

KEOKUK COUNTY

1. **Belva-Deer Recreation Area** -- Located 5 miles northeast of Sigourney, it consists of 360 acres, has all facilities, lake, is used as an outdoor classroom, with hiking trails, etc. If you can't find 'em here, don't bother looking!

2. **Bond Hill Park** -- This 8 acre park is 3 miles north of Richland. Picnicking and outdoor classroom activities seem to predominate. Toilets are provided, birding should be rewarding, but limited. The nearby, larger Skunk River should increase the possibilities.

3. **Delta Covered Bridge** -- This one acre area is proud to adjoin the historical landmark, the Delta Covered Bridge, and being on the shoreline of the North Skunk River, it is blessed with very fine timberland as well as water habitat to attract birdlife.

4. **Griffen Park** -- Apparently created by excavation of materials for the What Cheer Clay Products Co., of a few years back, it consists of a 2 acre pond and a 5 acre fishing lake, in a 40 acre tract just three-quarters of a mile east of the south edge of What Cheer. Real good prospects of a fine bird list exist here for the serious birder who will concentrate on this area and the adjoining cemetery.

5. **Manhattan Park** -- Small, yes, but mighty interesting looking! Only one acre in size, but endowed with trees galore, a boat ramp, camping area, (be sure to register), picnicking facilities, and the river accommodates a motor, fishing is 'not bad'. Birds of many species should be seen by just settin' and lookin'.

6. **Yen-Ruo-Gis (Sig-Our-Ney) Park** -- A great park only 2 miles north of Sigourney, an 8 acre lake situated in a 76 acre tract. Camping, swimming, picnicking, outdoor classroom, and plenty of birds!



MAHASKA COUNTY

1. **Keomah State Park** -- This is the largest wildlife area at present in Mahaska County, consists of 365 acres and contains 80 acre Lake Keomah. Birdlife varies seasonably, from lots of ducks and water oriented birds during the spring and fall migrations, to a great variety of song birds, many of which stay the year around. Hawks are not rare in the area, Osprey have been sighted, but not recently. All facilities are offered, it's a good place to visit.

2. **Quercus** -- Located along a rugged bluff of the Des Moines River, this heavily timbered and rugged area is being developed by the recently organized County Conservation Board. Facilities are limited at this time, hiking trails have been constructed. Much more is being planned. Birding is excellent, in season. The Chuck-wills-widow is frequently heard along this bluff. One was banded near here in 1974 by your writer, they have been seen and heard every year since. This is a place worth watching develop!

3. **Union Mills Access, New Sharon Access, Glendale Access and Cedar Creek Access** -- These areas have had some work started by the new conservation people, much is planned in the line of boating, fishing, camping, picnicking facilities. All are located on rivers or large streams, with lots of timber, etc. Birding areas are fine as is, only the comforts of life are limited.

4. **Ponds, Bayous, Strip Mine Areas** -- Many of the places mentioned exist in most areas of the county, for example the Hull Strip Mine area west of Oskaloosa and the Barnes City Lake area. A party out 'birding' will never be far from something different and interesting, and likely to turn up that rare one you have been waiting to see! Good Birding!

Field Reports

WINTER 1978-79

The species marked with * are on the National Audubon Blue List (Am. Birds 32:1106, 1978), the Iowa Blue List (I.B.L. 45:95, 1975) and/or on Dean Roosa's list of endangered, threatened or declining species for Iowa (I.B.L. 46:40, 1976).

General Comments. The early Christmas Bird Counts (CBC) set some unexpected records because of lingering fall migrants, but in late December winter closed in with a vengeance. During January up to 2 feet of snow piled up over the state, and the temperatures averaged 15-20 F below normal. February brought no relief. This kind of weather is not even for the birds, and obviously

impeded their observation severely. I therefore received relatively few and mostly short reports, and others did not reach me in time (including documentations for some outstanding rarities). This reports should be read in conjunction with Dr. Ross Silcock's CBC Summary - which also hasn't reached me yet. There are thus several reasons why this synopsis of a bad winter is unsatisfactory.

Hérons through Hawks. Single Gr. Blue Herons lingered into the third week of December at Boone (fide JD), Iowa City (TK), and along the Mississippi (PP,JS). A Whistling Swan was found dead at Sweet M. in early December (JS). As in 1978, a flock of Canada Geese was spotted flying over Iowa City in early January (TS). A Gr. White-fronted Goose near Amana was a surprise on January 6 (CB). Seventy-thousand Snow Geese were counted in the s.w. corner of the state in December, along with 14,000 Mallards (RP), and 150 flew over Davenport January 2 (PP). Among the uncommon lingering ducks were a Com. Pintail and a Blue-winged Teal on December 16 (RP), and single * Canvasbacks along the upper Mississippi December 5 and 22 (JS). An Am. Black Duck, 4 Com. Pintails and a Redhead were spotted near Panorama Dam on February 10 (RC). A N. Goshawk was seen on December 2 and 9 (GEF), but the documentation is not entirely diagnostic. As usual, some * Sharp-shinned Hawks stayed through the winter, one around our house being the most faithful (December 23-February 10) (NH); there were 7 in the northeast December 5-January 28 (JS). * Cooper's Hawks, in addition to those on CBCs, include one at Bays Branch, December 23 (RC) and 3 in the northeast, December 10-February 7 (JS,DK). The reports concerning Red-tailed Hawks are a mixed bag: they were numerous in some places (Iowa City, Cherokee, DB), but outnumbered by Rough-legs in others (GA). A sick female * Red-shouldered Hawk was captured on December 13 and taken to the Ledges S.P. Wildlife Station (JD). Rough-legged Hawks were "almost common" at Cherokee (DB), and apparently widespread in smaller numbers. A buteo repeatedly observed near the Amanas in early February was diagnosed as an immature * Ferruginous Hawk (CB,RH). Golden Eagles include one on the Davenport CBC (December 17, PP), 3 seen in the northeast (JS,DK), and one in w. Johnson Co., February 11 (MN). Twenty Bald Eagles at Saylorville in early December were surprising (WB). At Red Rock 3 immatures drowned (!) (fide GB). Commercial fishermen retrieved one. An adult near Pleasantville was seen feeding on a dead pig in late January (fide GB). The high count along the Mississippi was 450 at Keokuk on January 18 (fide PP). The Clinton to Keokuk census on January 28 yielded 302 birds (PP). * N. Harriers were apparent quite spotty in their distribution, with 12 at Badger Creek, 7 of them on January 17 (GA). A Gyrfalcon seen by Gene Burns in Guthrie Co. (fide GB) must be considered uncorroborated pending detailed documentation - after all, there has been only one previous published record from Iowa. * Am. Kestrels survived the winter in the west quite well: 18 were counted in Harrison and Pottawattamie Counties on February 6-7 (JS).

Gallinaceous Birds through Woodpeckers. A Gr. Prairie Chicken was seen in a tree near Pisgah, Harrison Co. (February 7, JS,DK, see longer note). Com. Bobwhites were reported as doing (unexpectedly) well in the northwest (DB), but were considered to be in trouble at Red Rock (GB). Flocking of Ring-necked Pheasants was observed in the Lamoni area (JDG); they too were believed to be stressed (GB). Gray Partridges, a totally unexpected find on the Iowa City CBC, December 16 (TK et al.), were prospering in more conventional geographic locations (DB). The high count of Wild Turkeys at the Amanas was 31 on December 24 (CB). A few Com. Snipe lingered into late December (fide RP, GA), and 2 as late as January 21 (JS). Mourning Doves braved the horrible winter in small numbers, and are paying with frozen feet for this mistake (GB). There were

19 reports of Snowy Owls this winter (fide GB, PP). Several Long-eared Owls were found in the s.w. corner (RP), one near Booneville (GA), another at Davenport (PP), and 7 roosts in the Lamoni area (JDG), but none in formerly reliable sites (GB). Three * Short-eared Owls were regulars at Booneville (GA); singles were seen no. of Farragut January 1 (RP) and s.e. of Pleasantville, December 24 (GB). A Saw-whet Owl at Baxter, Jasper Co., flew into a glass door and is on the mend (fide GB). Another fared the same way at Davenport, and has recovered (PP). One was at Sweet M. December 18-21 (JS). Belted Kingfishers were reported by several people. They were remarkably numerous in the northeast, where some streams don't freeze over even in the coldest winter (JS). A "Red-shafted" Flicker occurred at Hamburg on December 3 (IG). Com. Flickers were unusually numerous in the Red Rock area, feeding on cornborers (GB); elsewhere, they were coming to feeders. A Pileated Woodpecker in Buena Vista Co., December 1, was a welcome sight that far west (DB). * Red-headed Woodpeckers were very scarce. On December 23, Mr. and Mrs. Jay Stravers saw a male Black-backed Three-toed Woodpecker near Boyden, Sioux Co. (fide GB). Since there is no recent record of this species in the state, documentation is eagerly awaited.

Passerines. Several correspondents remarked on the abundance of Horned Larks. Technically a fall observation, but still noteworthy, is the presence of 2 Boreal Chickadees at an Osage feeder November 23-25 (AW). The description is convincing. One or 2 Red-breasted Nuthatches were seen, some of them with considerable regularity, at Iowa City (Fred Kent), Davenport (PP), Des Moines (WB, HZ) and Shenandoah (fide RP); 6 were found in the northeast (JS). Brown Thrashers frequented feeders in Bettendorf (PP) and December 29-February 3 in Tipton (fide GB). Wintering Am. Robins were reported from Cherokee (DB), Davenport (PP), and Johnson Co. (MN). A Hermit Thrush (other than the one on the CBC) was observed in Iowa City on December 17 (RD). A Townsend's Solitaire showed up once again in Glendale Cemetery, Des Moines (December 22, DM) and was seen by several out-of-town visitors; another was documented for Sheldon, O'Brien Co., February 3 (JV). I am aware of a total of 5 Bohemian Waxwing sightings (Cherokee (DB); Laurens, Pocahontas Co. (fide GB); Allamakee Co., January 27 (JS), and Iowa City, February 13 (CN)). Cedar Waxwings occurred irregularly, with flocks of over 60 at Jester Park, Des Moines (HLZ) and Cherokee (DB). They descended on downtown Iowa City on February 11 (MN), and by the 13th an estimated 500 were present (NH). For the third winter in a row, N. Shrikes were seen by several people in different places (near Booneville, December 7 (GA), s. of Red Rock L., December 26 (NH et al), n. of Swan L., Johnson Co., December 30 and Williams Prairie, February 10 (TK). In the northeast, where they are regular winter visitors, 20 were counted (JS, DK). * Loggerhead Shrikes were observed near Pleasantville (date? GB) and Shenandoah (February 3, RP). One was a regular at a feeder (DMs). Meadowlarks were few, but some wintered as far northwest as Pocahontas (CS). As usual, blackbird roost of moderate size were in evidence along the Mississippi (PP). Red-wing flocks were also seen near the Amanas in February (MN, TK). More unusual were 4 Rusty Blackbirds at feeding statons in Calhoun Co. (RC). An imm. Black-headed Grosbeak in early December frequented a Cedar Rapids feeder, and was said to have been seen by several experienced local birders (fide GB). That only rumors reached us a mere 27 miles to the south, and after the fact at that, illustrates how inefficient the Iowa "hot line" still is. Without documentation, this too will have to be classified as an uncorroborated report. Evening Grosbeaks were reported to Gladys Black from 15 counties (as opposed to 60 last year). Purple Finches were much more common,

but only the 77 banded (RP) and the 146 in Allamakee Co. (JS,DK) are a remarkable number. A total of 8 Com. Redpoll reports (GB,PP) is in stark contrast to the 1977-78 invasion. A total of 3 were at feeders December 15-January 7 and January 26-28 (DB). Pine Siskins were sporadic, with Ruth Phipps reporting "many"; they were very numerous in Davenport (PP). Am. Goldfinches were common statewide. The only crossbills mentioned were a flock of White-winged at Burlington in December (Jane Fuller fide GB). Of 9 wintering Rufous-sided Towhees reported, 7 were "spotted" (GB), as was the one at the feeder since January 15 (IG). Am. Tree Sparrows were few in most of Iowa, but abundant at Shenandoah (RP). Field Sparrows on CBCs (Iowa City, Muscatine, RD,TK et al.) were noteworthy, as were wintering Harris's Sparrows at feeders in the northwest (CS,DB) and near Pleasantville (GB). Twenty-six White-crowned Sparrows at the same feeder (GB) are certainly an unusual news item; so is the Lincoln's Sparrow banded at Shenandoah on January 27 (RP). Lapland Longspurs were few (JD), except at Muscatine on December 23 (fide PP), but heavy concentrations of Snow Buntings (up to 500+) were seen in the n.w. quadrant of the state from early December on (CS,DB,GA), especially during blizzards (GA), and in the northeast (JS).

Contributors. Gene Armstrong, Booneville; Carl Bendorf, Iowa City; Dick Bierman, Cherokee; Gladys Black, Pleasantville; Woodward Brown, Des Moines; Rich DeCoster, Chicago, Ill.; Raymond Cummins, Pocahontas; James Dinsmore, Ames; G. Edgar Folk, Iowa City; Ione Getscher, Hamburg; J. Donald Gillaspey, Lamoni; Nicholas Halmi, Iowa City; Rick Hollis, Iowa City; Thomas Kent, Iowa City; Darwin Koenig, Decorah; Dick Mooney, Des Moines; Dean Mosman (DMs), Elkhart; Mike and Carol Newlon, Iowa City; Peter Petersen, Davenport; Ruth Phipps, Shenandoah; Joe Schaufenbuel, St. Lucas; Conrad Schlemmer, Pocahontas; Tom Staudt, Iowa City; John Van Dyk, Sioux Center; Andy Wollfries, Osage; Hank and Linda Zaletel, Ames. N.S. HALMI, R. 6, IOWA CITY, 52240.

Reminder: In order to be included in the spring report, communications MUST reach me by June 8. N.H.

General Notes

Greater Prairie Chicken in Harrison County -- On 7 February 1979 near Pisgah, Harrison Co., Darwin Koenig and I discovered a Greater Prairie Chicken (*Tympanuchus cupido*) feeding in a Box Elder tree. The bird was first observed by Koenig when he became suspicious of a grouse-like bird perched in a roadside tree. At that time we were headed south on 183, south of Pisgah. Koenig, who was driving, immediately slowed down and backed onto the shoulder to the point he had seen the bird. I had not yet located the Greater Prairie Chicken but Darwin wasted no time in giving the proper identification. When I finally had found it I was satisfied with a glance of the distinct barring of the underparts (barring on the underparts distinguishes the two prairie chicken species from all other open country gallinaceous birds). We soon put the telescope on the bird and recorded the following marks and impressions. A chicken-like bird with a short, rounded tail, and body size of a female Ring-necked Pheasant. Bill was dark, eye color was a sandy brown and feet were described as light brownish. The upperparts were darker than below with dark brown barring on the breast, belly and sides. The head and throat were buffy with distinct darker eye-ring, malar stripe, and crown. The tail when seen in flight was dark, short and rounded. The long neck feathers were seen, and were light brown striped with dark brown and black. When flushed the typical pheasant flap-glide pattern of flight was noted, however the prairie

chicken seemed to have longer wings, and with each flap of the wings there occurs a peculiar habit of rolling of the body. Lesser Prairie Chickens (which has never been known to occur in Iowa) are smaller, paler and rare even in its restricted range. Our bird was dark and with distinct darker barring. The bird was seen in good light at distances within 25 feet, from 3:20 to 3:45 p.m. Location of sighting was the n.w. part of section 34, Jackson Township. Woodward H. Brown's *Annotated List* states that Greater Prairie Chickens are no longer found in Iowa, however all surrounding states have breeding populations, some states even have hunting seasons, and it is thought the bird we found wandered in from these states, most likely Nebraska. -- JOSEPH SCHAUFENBUEL, St. Lucas.

Northern Shrikes in Iowa -- For the third straight winter numbers of Northern Shrikes (*Lanius excubitor*) have been found in northeast Iowa. Since this species is considered a scarce and normally rare winter resident in the state I became interested in keeping records on habitat preference, plumage, behavior, prey and numbers. I have found that Northern Shrikes are very much like hawk species, in that they form territories which they likely defend and occupy for long periods, perhaps all winter or until the prey becomes scarce in that particular area. My records show that this is the case, as several shrikes have been found on a regular basis on a perch they seem to prefer time and time again, some appear for months and some year after year (one such shrike has been found in its favorite area in Allamakee Co. for 3 years 1976-'78, of course I can not prove it is the same bird but chances are it is). Only two constant factors seem to attract shrikes, one being prey (small birds and mice), the other being some device to hold prey while the shrike tears muscle from the bone, such a device is usually a thorny bush or a fork in a tree branch, in which it lodges the head of the victim. I have records of shrike prey, and all were small birds (a junco, a longspur and one unidentified small passerine). According to this the Northern Shrike prefers avian prey and this may answer why n.e. Iowa with so much attractive habitat for small birds draws this predator. As for identification of Northern vs. Loggerhead Shrike I have found the best marks to be that the Northern has a large hooked bill, large head, large white patch on rump and much white in lores, eyeline and at base of upper-part of bill. The Loggerhead has a stubbier bill, and darker around bill and also a gray rump. Since the decline of the Loggerhead Shrike and the fact that it usually leaves the state in winter it seems that most shrikes that occur in winter in the northern half of Iowa are more apt to be Northern Shrikes. Indeed I have never found a Loggerhead Shrike in my area but have found Northern Shrikes as far south as Harrison Co. No. of Northern Shrikes found in counties and dates seen during period Dec. 1, 1978 to Feb. 10, 1979: Allamakee -- 5, Dec. 13 to Jan. 27; Cherokee -- 1, Jan. 8; Fayette -- 2, Dec. 18 to Jan. 8; Harrison -- 2, Feb. 7; Winneshie -- 8, Dec. 2 to Feb. 10; Woodbury -- 2, Feb. 8. Other shrike seen during the period in counties as far south as Pottawattamie were strongly suspected to be Northern but were seen to briefly or at such distances as to make the sighting unreliable. The total of shrikes found in northeast Iowa stands at 15, with 5 more in western Iowa, for a grand total of 20. I wish to thank Darwin Koenig for his help in identification, mapping, and locating of shrikes. -- JOSEPH SCHAUFENBUEL, St. Lucas.

Acadian Flycatcher and Verry Nests -- The Acadian Flycatcher and the Veery are considered rare breeding birds in Iowa (Brown, 1971, Iowa State Jour. Sci. 45:387-469). As there are few recent nesting records of either species, the following observations may be of interest.

Acadian Flycatcher

During June, 1977 I found ten active nests of the Acadian Flycatcher at various locations in Allamakee, Dubuque, and Fayette Counties. Six of the nest sites were on steeply sloping wooded hillsides; two of the nests were placed at the ends of branches overhanging ravines and four were on branches overhanging woodland trails. The remaining four nests were on branches overhanging small woodland streams. The following table gives the tree species in which the nests were found, nest height, number of eggs, and nest success.

Tree Species	Nest Height (ft)	No. Eggs	Nest Success
Sugar Maple	15	unknown	unknown
(<i>Acer saccharum</i>)	7	2	unsuccessful
	10	1; later 1 young	unknown
	7½	unknown	unknown
Am. Hornbeam	8½	unknown	unknown
(<i>Carpinus caroliniana</i>)	6½	1	unsuccessful
Black Willow	8	3	unknown
(<i>Salix nigra</i>)			
Staghorn Sumac	4½	1	unknown
(<i>Rhus typhina</i>)			
Am. Elm	13	1	unknown
(<i>Ulmus americana</i>)			
Witch-Hazel	7	3; later 1 young	unknown
(<i>Hamamelis virginiana</i>)			

Veery

On June 15, 1977, while birding in the Brush Creek Canyon State Preserve, Fayette County, I flushed a Veery from its nest. The nest contained two eggs of the Veery and one cowbird egg. It was attached to a branch of a fallen elm tree, 1.6 feet above the ground, around which a dense stand of nettles (*Urtica*, sp.) had grown. The nest site was at the foot of a steep hillside, at the junction of the hillside and the floor of a narrow stream valley. Sugar Maple and Am. Elm dominated the overstory and Prickly Ash (*Zanthoxylum americanum*) dominated the understory near the nest. DARWIN KOENIG, R. R. 4, Decorah.

BOOK REVIEWS



A Field Guide to the Nests, Eggs and Nestlings of North American Birds -- Colin Harrison -- Wm. Collins Publishers, Inc. 208 W. 117th St., Cleveland, Ohio -- 416 p., 16 color plates, 48 plates of color photographs, many line drawings -- 1978 -- \$11.95.

Finally we have a comprehensive guide describing and illustrating the eggs and identifiable nestlings of North American birds. The color photographs of eggs show variety within species when it occurs. Many nests are illustrated by line drawings. Hal Harrison's guide (IBL Vol. 45, p. 99) provides illustrations of more

nests but empty nests are still hard to identify positively. The text details nest habitat, nest-site, breeding season, eggs, incubation, nestlings and nestling period. Breeding range is not included but a key is included for nest identification.

The guide is bound in a field guide size. Banders might find it useful if they work with nestlings. The book carries warnings against egg collecting and hopefully readers will use caution when around nests and nestlings. ed.

Vanishing Birds, Their Natural History and Conservation -- Tim Halliday -- Holt, Rinehart and Winston, New York -- 296 p., 16 color plates, 46 line drawings and 9 maps -- 1978 -- \$16.95.

The author approaches his subject with an examination of the ways in which birds evolved in an effort to show the susceptibility of some species to human influences. The histories of some classic extinctions are discussed in detail. The bulk of the text covers some regions of the world indicating past and current species in trouble. The survey is confined to the more temperate areas and some islands, thereby ignoring the tropical regions where human population pressure is such a great threat to many species. Some suggestions for conservation close out the book, a creditable but incomplete effort. ed.

Endangered Birds, Management Techniques for Preserving Threatened Species -- Stanley A. Temple, ed. -- U. of Wisconsin Press, Madison -- 466 p., 31 black-and-white photographs, many charts and tables -- 1978 -- \$9.50.

Judging by the titles, this book and the one covered in the previous review might seem quite similar. However, they are not at all alike and are aimed at different audiences. The preceding review covered a book intended for the general reader. This collection of 51 papers from a symposium on endangered birds contains very specific data on individual populations of many species. The papers are grouped in nine parts plus a summary. They cover endangered bird problems and the concept of managing threatened species, increasing reproductive effort and success by reducing nest-site limitation, alleviating problems of competition, predation, parasitism and disease, supplemental feeding and manipulation of feeding ecology, manipulating aspects of nesting biology, captive breeding of endangered birds, genetic aspects of managing dwindling bird populations, reintroducing endangered birds into the wild and integrated approaches to management of endangered birds. ed.

Birds in Peril -- John P. S. Mackenzie -- Pagurian Press, E. P. Dutton and Co., New York -- 192 p., 20 color plates, many line drawings -- 1977 -- paperbound, \$7.95.

This book parallels the two reviewed above. It covers twenty species and subspecies of U. S. birds that are endangered. Each of these is illustrated by a full page color plate by T. M. Shortt. The twenty birds covered are described, their history, decline, recovery and life cycle detailed and the future prospects discussed. Although limited to U. S. birds it is a complete coverage and is recommended over *Vanishing Birds*. ed.

Working Bibliography of Owls of the World -- Richard J. Clark, Dwight G. Smith, and Leon H. Kelso -- National Wildlife Federation, Washington, D.C. -- 336 p. -- 1978 -- \$9.00.

The result of eleven years of effort this bibliography will be welcomed by researchers and serious students alike. In addition to the long master list of citations it included cross reference by genus, geographic location and category of information. Common names of owls are provided in over 60 languages. Current taxonomy and distributional status round out the work. Since this is the first volume of the National Wildlife Federation's Scientific-Technical Series, one can only hope the high quality will be maintained. ed.

The Complete Outfitting and Source Book of Bird Watching -- Michael Scofield -- The Great Outdoors Trading Co., 24759 Shoreline Highway, Marshall, California - 192 p., many black-and-white photographs -- 1978 -- paperbound -- \$6.95.

Using the word "complete" in the title is risky. This book, like many other recent books, breaks new ground. The chapter titles give you an idea of what is covered: history, basic equipment, publications, clubs, best bet birding spots, tours, museums, zoos, bird attracting, state birds, rare bird alerts, checklist of U. S. and Canadian birds, and a glossary of bird watching terms. The better sections are history, basic equipment and publications. The club list is very spotty, refer to Rickerts book (IBL Vol. 48, p. 144). The best bet birding spots is just a list of National Monuments and Parks and Wildlife Refuges with a few sanctuaries. It even has a Grate Smoky Mts. N.P. under South Dakota. The museum and zoo list is so incomplete it can not be relied upon at all. A major drawback is many items of a similar nature are listed but no advice is given as to which might be the best. Since prices change rapidly today they are not included but can be obtained from the publisher. Look the book over before purchase, it might be useful to your needs. ed.

Birds of the Superior National Forest -- Janet C. Green, Gerald J. Niemi and Karl P. Siderits -- U. S. Forest Service, Box 338, Federal Bldg., Duluth, Minn. 55801 -- 82 p., many line drawings and photographs -- 1978 -- paperbound, free.

This little book provides a nice introduction to the bird communities and species found in Superior National Forest. The primary and secondary breeding species are listed for each ecological community and the communities are illustrated by photographs. The annotated list includes abundance rates for summer and winter residnets, breeding habitat and migration times, specific birding areas are also included. Since the book is free it is certainly well worth the effort of obtaining. ed.

Wild Birds of the Americas -- T. M. Shortt -- Pagurian Press, E. P. Dutton and Co., New York -- 272 p., 67 color plates and 110 line drawings -- 1977 -- paperbound -- \$8.95.

Shortt has travelled widely in North and South America during the course of his forty-seven year career as a field artist and ornithologist. He gives the reader portraits of representatives of bird families of the Americas. The text accounts combine general background information with notes and observations from field experiences. Interestingly written text and well reproduced sketches and paintings combine to provide a well rounded book with wide interest. ed.

Songbirds -- Don Earnest -- Time-Life Television, New York (see next page) -- 128 p., many color photographs -- 1978 -- \$8.95.

Again the "Wild, Wild World of Animals" series (IBL Vol. 47 p. 71, Vol. 48, p. 55) has produced an excellent volume devoted to birds. Covering thrushes, warblers, blackbirds, tanagers, finches, flycatchers, tits, wrens, weavers and swallows, the photography is up to the high standard of the previous offerings. The text includes the work of Elliott Coues, John Burroughs and Carl Sandburg. The treatment covers birds from throughout the world.

Two other new titles in this series also relate to birds. **Kangeroos and Other Creatures from Down Under** includes 18 pages on birds. Alex Chisholm's verbal description of the display and vocalization of the Supurb Lyrebird is included. **Animal Defenses** uses avian examples of protective coloration, especially the ptarmigan, and protective nesting with terns nesting within a gull colony. Although the text is brief in these books the layout, use of photographs and final result is excellent. ed.

Birds of the Southwest Pacific -- Ernst Mayr -- Charles C. Tuttle Co., Rutland, Vermont -- 316 p., 3 color plates, many line drawings, one map -- 1978 -- paperbound, \$5.75.

First published in 1945, this long out-of-print guide is still about the only source of identification and information for some of the islands. Much of the identification data is in key form and only 39 species are illustrated in color. The distribution information is still reasonably accurate. The color plates are very dull and washed-out compared to the original edition. The price is reasonable and if you are planning to be in this area it is well worth purchasing. ed.

Enjoying Birds in Indiana -- Alfred Starling -- Indiana University Press, Bloomington -- 328 p., many line drawings -- 1978 -- \$17.50.

This is a series of short essays on 122 species in a monthly sequence. It is aimed at the novice birder and supplements field guides. Most Iowans won't benefit from this rather expensive item, but those with acquaintances in Indiana that are fledgling birders may wish to use it as a gift. ed.

Life in Zoos and Preserves -- Charles Osborn, Ed. -- Tim Life Books, dist. by Little, Brown and Co., 34 Beacon St., Boston -- 128 p., over 100 color photographs -- 1978 -- \$7.95.

Another volume in the Wild, Wild World of Animals series, this one is well illustrated and produced. Using excerpts from several books the editors present a picture of the efforts to protect and maintain endangered species. It deals with all species but stresses bird and mammals. The book, and the entire series, is highly recommended for secondary school and college libraries. ed.

Ducks, Geese and Swans of the World -- Paul A. Johnsgard -- University of Nebraska Press, Lincoln -- 404 p., 59 color photographs, 132 maps and 150 line drawings -- 1978 -- \$35.00.

Johnsgard has produced a tremendous volume of material on waterfowl. In addition to writing he also illustrates his work with excellent line drawings. The two previous monographs, one covering ducks and the other all waterfowl, both required four volumes. This book condenses much data covering about 150 species in a single volume. The species coverage includes vernacular names in several languages, scientific names, distribution of subspecies, weights and measurements, identification for both sexes and various ages, habits, foods, social behavior, and reproductive biology. It is a well done coverage of an important order and will prove a valuable reference. ed.

Birding News Survey -- Avian Publications Inc., P. O. Box 310, Elizabethtown, Ky. 42701 -- 28-38 p., per issue, quarterly -- \$5.00 per year.

This new quarterly journal reprints articles from state and regional publications which should be of interest to birders. The first two issues have featured articles dealing with identification, field techniques, photography, habitat conservation, attracting birds, bird finding, bird alerts, birding vacations, club ideas, publications, and selected ornithological events. The journal is well done and is worth the consideration of serious birders. ed.

Bird Watcher's Digest -- P. O. Box 110, Marietta, Ohio 45750 -- 96 p., bimonthly -- \$7.50 per year.

The second new journal which was initiated last fall also reprints articles but from newspapers and general natural history magazines. As one would expect these are more general articles and written more for the general reader than the avid birder. The articles seem accurate and do relate to interesting subjects. The publishers, Bill and Elsa Thompson, were residents of Pella for many years. The journal fills a void and doubtless will be welcomed by many birders. ed.

The Ring-necked Pheasant in Iowa -- Allen L. Farris, Eugene O. Klouglan, and Richard C. Nomsen -- Iowa Conservation Commission, Des Moines -- 154 p., one color plate, many color and black-and-white photographs, maps, charts and tables -- 1977 -- \$3.00.

This book is perhaps of more interest to Iowa Hunters than Iowa birders, but there is much data here for the birder. The book presents some general background on pheasants and their introduction. A capsulized life history is included as well as population figures over recent years. Winter feeding is discussed as well as stocking, land management, and hunting. The book is intended for the hunter and general reader and publications such as this should be encouraged by anyone interested in Iowa birds. -- ed.



The first Iowa Nongame Support Certificate features a male N. Cardinal photographed by Commission photographer Ken Formanek. Each of the 5,000 prints will be individually numbered. Revenue from the sale of these collectors' items will be used specifically to enhance Iowa's nongame species. They are available now and can be purchased for \$5 each from the Iowa Conservation Commission, Wallace Building, Des Moines, Iowa 50319.

Cover

The 1979 covers of *Iowa Bird Life* are graced by a likeness of the Bald Eagle, the work of Erwin A. Stock of Bettendorf. Presently employed by Martek Communications, Mr. Stock was the winner of the "Best of Show" Award at the 1978 Ducks Unlimited Midwest Wildlife Art Show and has his work in collections in eleven states and three foreign countries. ed.